

**Western University**  
**Scholarship@Western**

---

Undergraduate Honours Theses

Psychology

---

Spring 4-24-2017

# The Effects of Conformity on Eyewitness Testimony and Confidence

Kaitlyn B. Sluys  
[ksluys@uwo.ca](mailto:ksluys@uwo.ca)

Follow this and additional works at: [https://ir.lib.uwo.ca/psych\\_uht](https://ir.lib.uwo.ca/psych_uht)



Part of the [Psychology Commons](#)

---

## Citation of this paper:

Sluys, Kaitlyn B., "The Effects of Conformity on Eyewitness Testimony and Confidence" (2017). *Undergraduate Honours Theses*. 29.  
[https://ir.lib.uwo.ca/psych\\_uht/29](https://ir.lib.uwo.ca/psych_uht/29)

# THE EFFECTS OF CONFORMITY ON EYEWITNESS TESTIMONY AND CONFIDENCE

by

Kaitlyn Sluys

Department of Psychology

Submitted in Partial Fulfilment

of the requirements for the degree of

Bachelor of Arts

in

Honours Psychology

Faculty of Arts and Social Science

Huron University College

London, Ontario

April 24, 2017

© Kaitlyn Sluys, 2017

HURON UNIVERSITY COLLEGE

FACSIMILE OF CERTIFICATE OF EXAMINATION

(The Original With Signatures is on file in the Department)

Advisor: Dr. S. Hessels

Reader: Dr. T. Dumas

The thesis by:

Kaitlyn Sluys

entitled:

The Effects of Conformity on Eyewitness Testimony and Confidence

is accepted in partial fulfilment of the requirements for the degree of

Bachelor of Arts

in

Honours Psychology

April 27, 2017

Date

Christine Tsang

Chair of Department

## Abstract

The purpose of this study was to determine if eyewitness testimony and confidence are affected by conformity. Participants watched a crime video and then watched three videos of three confederates who were believed to be participants. For the three videos, each confederate looked at pictures of suspects and identified which one committed the crime. Participants in the ‘unbelievable suspect choice’ condition watched videos of confederates purposely choosing the wrong suspect. Participants in the ‘believable suspect choice’ condition watched the confederates choosing the correct suspect. After the participant chose a suspect, a confidence scale was filled out. The participant then assessed the confederates’ body language and completed a distractor task. Finally, he/she rated their confidence again and filled out a questionnaire. Results showed that participants who were in the ‘unbelievable’ condition did not pick the wrong suspect. However, they did show a lower initial confidence rating score. These participants did not show an increase in confidence later in time. Those who were in the ‘believable’ condition did choose the correct suspect and they did not show a significant change in confidence with time.

*Keywords:* eyewitness testimony, confidence, conformity, believability

## Acknowledgements

I would like to first thank my advisor, Dr. Sandra Hessels. Thank you for all of your support and guidance. During numerous appointments, you helped me relieve my stress and encouraged me to dig deeper when brainstorming ideas regarding my thesis. I appreciate all of your advice and I am also so thankful that you trusted me with your tripod for my camera. I promise I kept it safe!

I would also like to thank my second reader, Dr. Tara Dumas. Your feedback and advice helped guide me in the right direction when writing my thesis. I also would like to thank you for checking in with me throughout the school year to make sure that my thesis was coming along well.

Finally, I would like to thank my friends and family members who displayed endless amounts of patience. Throughout my undergraduate career, you all helped me relieve any stress that I was feeling and I will be forever grateful!

## Table of Contents

	Page
CERTIFICATION OF EXAMINATION.....	ii
Abstract.....	iii
Acknowledgements.....	iv
Table of Contents.....	v
Introduction.....	1
Method.....	9
Participants.....	9
Materials and Procedure.....	9
Results.....	12
Discussion.....	13
References.....	18
Appendix A.....	21
Appendix B.....	22
Curriculum Vitae.....	23

## Introduction

The validity and accuracy of the criminal justice system in any country is generally based upon effectiveness and fairness (Rosen, 1992). The effectiveness of the system is based on the ability to detect crime accurately, while the fairness is judged by the thoroughness and the efforts to correct the resource imbalance between the accused and the state (Rosen, 1992). If someone is wrongfully convicted, that person is punished for an offence that he or she did not commit and the actual criminal is not detected. Thus, the effectiveness and fairness of the system is not correct or accurate in these situations. Eyewitness identification testimony, where an individual who witnessed the crime identifies who he or she believes committed the crime, can be very persuasive. However, often times it is not accurate or reliable. For instance, eyewitness misidentification contributed to “approximately 71 percent of the more than 300 wrongful convictions in the United States overturned by post-conviction DNA evidence” (Causes of Wrongful Convictions, n.d.). Scientific research has shown that memory, which is what eyewitnesses rely on, is “a constructive, dynamic, and selective process” that can be influenced by many factors (Causes of Wrongful Convictions, n.d.). One factor that specifically affects one’s memory is conformity. Conformity can be defined as a “type of social influence involving a change in belief or behaviour in order to fit in with a group” (McLeod, 2007).

To examine memory conformity further, Gabbert, Memon, and Allan (2003) conducted an experiment which required participants to watch a short, crime video in either pairs or individually, depending on the experimental condition. Half the participants in the individual condition saw perspective A and half saw perspective B of the crime video. Participants in the co-witness condition were led to assume they were seeing the same video as their co-witness, however each saw a different perspective. After watching the video, participants were given

questionnaires which asked them to discuss what occurred with their co-witness. Participants in the individual condition were asked to complete the questionnaire alone. The questionnaire items included a request for a free recall of the sequence of events and specific questions about the event (Gabbert et al., 2003). After, they engaged in a series of filler tasks for 45 minutes and then were individually asked to recall the events from the video and answer questions regarding the crime. Following each question, they were asked to state how confident they were with the answer they provided with a 7-point Likert scale. Results showed that 72 percent of witnesses who had discussed an event with a co-witness reported items of information that they had acquired during the discussion (Gabbert et al., 2003). Also, 60 percent of participants in the co-witness condition reported that a suspect committed a crime who was actually not guilty (Gabbert et al., 2003). This experiment showed that memory can be affected by the pressure to conform. Although it is human nature for people to express their shared experiences, this study did not examine if one's memory recall might be affected if there was not a shared discussion but there was still pressure to conform.

A study by Asch (1951) examined to what extent social pressure from a majority group could affect a person to conform, without a discussion being held between participants. He asked each participant to sit in a room with seven confederates. All the people in the room completed a line-judgement task and one-at-a-time stated which line they believe was the same length as the target line. The answer was obvious but the seven confederates stated the same wrong answer and then the participant stated their answer last. Results showed that, on average, 32 percent of the participants conformed to the obvious wrong answer (Asch, 1951). This provides evidence that an individual will still conform even if he/she knows that the majority group's belief or answer is incorrect.



To gain further insight of the majority effect and social influence, Asch (1951) conducted the study again but altered the size of the majority in several different variations. Specifically, the majorities consisted of sixteen, eight, four, three, or two people in the room with the participant. He also examined the pressure to conform when only one confederate was in the room with the participant. When this was the case, the majority effect disappeared and conformity was not shown. When the group consisted of two confederates and one participant, a small distortion of the majority effect was shown, with errors being 12.8 percent of the total number of estimates (Asch, 1951). He found that the effect appeared in full force with a majority of three confederates (32 percent). When there was a larger group of majorities, such as four, eight, and sixteen confederates, it did not produce effects greater than a majority of three. Thus, having more than three confederates did not increase the levels of conformity found. Further research also suggested that people might suspect collusion if the majority of confederates is beyond three (McLeod, 2008).

Meuiner and Rule (1967) conducted an experiment which was similar to Asch's experimental design in order to examine the possibility that test anxiety and conformity are related to confidence in judgements. Participants were asked to complete three practice rounds of a task which consisted of matching the length of a given stimulus with one of three other comparison lines, similar to Asch's (1951) line-judgment task. For each task, the judgements of eight other people were clearly wrong. Therefore, agreement with the wrong judgement was a conforming response. Participants were then randomly assigned to either the failure condition, the success condition, or the control condition. For the failure condition, the experimenter told the participant that his judgements were wrong and that other participants had performed well. While for the success condition, the experimenter told the participant that his judgments were

correct and he had done well in comparison to the others. For the control condition, the participant was given no feedback on his performance. The participants then completed the same task again where lines were projected on a screen for seven seconds. Participants indicated their judgement of the matching lines on a sheet and rated their confidence. This continued until the eighteen trials were completed.

Results showed that high anxious individuals conformed significantly more than low anxious individuals. When low anxious participants conformed, their confidence was lower than when they did not feel pressure to conform. Thus, confidence was negatively correlated with conformity. Also, the confidence differed based on the feedback given. For instance, participants who were told that they successfully completed the tasks had the highest confidence and those who were informed that they did not do well had the lowest confidence. These findings show that conformity outweighs doubt; even though an individual might have low confidence regarding their answer, he/she will still conform. So, it can be assumed that if an individual is an eyewitness, he/she could alter their answer based on others' answers, even if he/she has low confidence in the other individuals' answers being correct.

In relation to conformity and eyewitness testimony, Valentine and Maras (2011) conducted an experiment to examine the effect of cross-examination on the accuracy of eyewitness testimony. Undergraduate students participated and were asked to watch a video of a crime, which was the video used by Gabbert et al.'s experiment (2003). Half of the participants viewed the video from the room and half from the door, so the view of the crime was different from the room versus the door. Also, half of the participants viewed the video in pairs, and thought that they were viewing the same video as their co-witness. The other half watched the video individually. After, all witnesses completed a questionnaire regarding their memory of the

video. Witnesses in the control condition completed the questionnaire individually while participants in the co-witness condition completed the same questionnaire with their co-witness, and were asked to discuss the event together. All participants then completed an unrelated filler task before completing another recall questionnaire individually which asked for a free-recall of the video and questions regarding the video. Confidence in the answer to each question was measured using a seven-point confidence rating. This experiment was very similar to Gabbert et al.'s (2003) experiment except after a delay of approximately four weeks, witnesses returned to be independently cross-examined. Results showed that approximately three-quarters of witnesses included at least one detail which they could only have acquired from their co-witness. This provided strong support for influence from co-witnesses on eyewitness testimony. Results also showed that after a delay of just four weeks, eyewitness testimony became fragile and the cross-examination was extremely effective in manipulating witnesses' testimony. Finally, results showed that confidence of correct answers was greater than confidence of incorrect answers throughout the experiment (Valentine & Maras, 2011). These findings provide support that conformity can affect one's recall of events. Not only were the participants pressured to conform when discussing what occurred in the video with their co-witnesses, they were also pressured to conform when cross-examined. This experiment provides evidence that even though an individual might conform readily, it does not mean that their confidence will still remain high.

Most research has measured the accuracy of eyewitness testimony by watching crime videos, instead of live events. To examine if the presentation mode of an incident affects the results, Sanders and Chiu (1988) conducted an experiment where participants watched an incident either live or on a television. Participants were then given a filler task in which they were to work on for five minutes. The purpose of this filler task was to prevent rehearsal and

reliance on short-term memory. After this task, participants were asked to write down everything that they had heard and seen during the incident. Results showed that an average of 14 percent of the total statements from the recall were scored as incorrect, which also means that any one statement had an 86 percent probability of being correct (Sanders & Chiu, 1988). Also, presentation mode did not show significant effects on error rates. This shows that great weight can be placed on free recall of events, even if the eyewitness did not view the incident live.

This past research on conformity and confidence did not mention whether confidence was affected with the passing of time. Festinger's (1957) cognitive dissonance theory suggests that we have an inner drive to hold all of our attitudes and beliefs in harmony and avoid disharmony. When referring to this theory, it can be expected that with the passing of time, confidence ratings would increase to avoid disharmony if the participant conformed and chose an answer that they did not believe was correct. To further examine the effects of cognitive dissonance, Kouhara (1993) conducted a study where a total of 69 Japanese college students participated. Each participant was first asked to individually solve six problems that involved indicating which author, out of two, produced a given sentence. The profiles of each author were given for each problem. There were many cues given in the sentences and the profiles which helped indicate who the real author of the sentence was. During the next part of the study, participants were put in groups of five and were all asked to complete similar problems that involved indicating the author of the sentence but they were also provided with the answers of other 'participants'. However, these were fake answers that were produced by the researcher which were clearly incorrect answers. After the participant provided her answers for the problems, she was asked to fill out questionnaires on the credibility in the other 'participants'' responses and she was also asked about her confidence in her own responses. In the post-test, each participant was asked to

answer the same six problems individually. Results showed that participants who provided the same answer as the other ‘participants’ during the group session changed their opinion to balance out the changes following conformity behaviour, which can be explained through cognitive dissonance. In other words, participants raised their confidence ratings after answering incorrectly to then alter any feelings of discomfort. This can then provide support that if an individual answers incorrectly to conform with the majority, then his/her opinion on the answer could change to avoid dissonance, or contradicting thoughts.

In summary, Gabbert et al. (2003) showed memory can be affected by the pressure to conform and Asch (1951) showed that an individual will still conform with the majority even if he/she has a different belief regarding the correct answer. Asch (1951) also found that having more than three confederates (or having more than three individuals in the majority group) did not increase the rate of conformity. McLeod (2008) added to this finding and suggested that people might become suspicious of collusion if there were more than three individuals in the majority group. In relation to this, Meuiner and Rule (1967) concluded from their experiment that confidence is negatively related with conformity. Also, Valentine and Maras (2011) provided support that social influence affects eyewitness testimony and further showed that confidence was lower for those who conformed. Sanders and Chiu (1988) examined the effects of presentation mode and found that a crime can be viewed live or by watching a video and it does not affect error rates on recall. According to the cognitive dissonance theory, we have an inner drive to hold all of our beliefs and attitudes in harmony (Festinger, 1957). So it can be predicted that with the passing of time, confidence ratings would increase when looking at Meuiner and Rule’s (1967) results. Kouhara’s (1993) article provided some support for cognitive dissonance and conformity. He found that as the cognitive dissonance of feeling

uncertain increased, the participants' opinions on their answers changed and matched with their answers to avoid dissonance. Although Asch (1951) found support for normative social influence, his study consisted of an artificial task, so this provided justification to replicate his study with a real-life task. This real-life task for the present experiment consisted of viewing a line-up of suspects and picking which person was the criminal. Asch's study also consisted of only males, so the present experiment consisted of males and females. He did not examine confidence ratings, eyewitness testimony, or the effect of cognitive dissonance so this also provided justification to examine this further.

The present experiment examined the effects of conformity on eyewitness testimony and confidence. Believability of suspect choice (confederates who picked the wrong suspect versus confederates who picked the right suspect) was the independent variable and the suspect chosen and confidence ratings were the dependent variables. Confidence was measured twice during the experiment, once right after the participant picked the suspect and then after two filler tasks were completed, which was approximately ten minutes in duration. Overall, the hypotheses were that participants who watched the confederates choose an unbelievable suspect would be more likely to pick the wrong (unbelievable) suspect and would have lower confidence rating scores. It was hypothesized that these participants would show an increase in confidence later in time (after the filler task). That being said, it was hypothesized that participants that watched confederates pick a believable suspect would pick the correct (believable) suspect and would have a high confidence rating score. These participants would also show the same confidence rating after the filler task, and therefore there would not be a change in confidence.

## **Method**

### **Participants**

A total of 16 participants (10 females and 6 males) completed this experiment. Participants consisted of undergraduate students enrolled in the first year psychology course at Huron University College. These students were recruited through the online SONA System and each participant received one credit for participating, which counted for a percentage of their grade in the psychology course. The participants currently live in Ontario, Canada.

### **Materials and Procedure:**

Each participant was invited to take part in a study regarding the effects of conformity on eyewitness testimony and confidence. Upon completing the consent form, the participant was asked to watch a video of a non-violent crime. This was an artificial crime and it was filmed in an empty parking lot. The camera filmed the criminal who broke into a vehicle's passenger's door, grabbed a bright pink backpack, looked in the camera's direction and then walked away out of sight. The video therefore showed the criminal's body and a brief look at their face and the entire video lasted forty-one seconds long. After watching the video, the participant was asked to watch three videos of other 'participants' who completed the same experiment. The videos of the other 'participants' were actually of confederates though, but the real participant was not aware of this. To make sure the participant was not aware of the confederates, a cover story was necessary. As part of the story, it was first stated that each participant was video-taped to examine the relationship between body language and confidence. To further explain this, it was stated that the videos of the last three participants who completed the experiment would be shown to the current participant. Confident body language was also explained, by stating that

confident body language consists of holding head still, leaning back in the chair, hanging arms comfortably by your side or in your lap, emphasizing words with hands, nodding to agree, slowing down speech, sitting up straight, and using eye contact (Pendergrass, 2013). The participant was also told that he/she would be asked to briefly assess the body language of each ‘participant’ later in the experiment. After explaining the cover story, the participant was shown the three videos of the three confederates.

Each confederate was also an undergraduate student in the same course as the actual participants. In other words, the confederates were the participants’ classmates to make it seem as if they truly were participants. In each video, each confederate looked at six pictures of potential suspects, with the pictures shown all at once, and the confederate identified who they believed committed the crime. Five of the suspects were Caucasian and one suspect was Mexican. The ages of the suspects were approximately: 50 years-old, 30 years-old, 17 years-old, 23 years-old, and two were ages 21 years-old (one was Mexican). The suspect chosen by the three confederates depended on the condition that the participant was in. To explain further, participants were randomly assigned to either the ‘unbelievable suspect choice’ condition or the ‘believable suspect choice’ condition. This random assignment was done by having every other participant be assigned to the ‘unbelievable suspect choice’ condition. In the ‘unbelievable’ condition, the three videos of the three confederates showed each confederate picking the same suspect (“suspect number two”) but this suspect clearly did not look like the same person in the crime video. The picture of the suspect that they all chose was shown in the videos by having each confederate hold up the picture so the participant clearly saw the person that they chose. This suspect wore beige pants, a grey t-shirt, had tanned skin, had facial hair, was approximately five feet and ten inches tall, and had untidy, black hair. In the ‘believable suspect choice’



condition, the three videos again showed the three confederates picking the same suspect (“suspect number two”) but this suspect was the person in the crime video. The actual criminal wore blue jeans and a black t- shirt, was Caucasian, had no facial hair, was approximately six feet and one inch tall, and had brown hair. These videos of the confederates were videotaped in the same classroom as each participant to make it look as if the confederates truly did complete the experiment. The two different sets of the three videos consisted of the same confederates and the confederates acted in the same way in both sets of videos. The videos of each confederate ranged from nine to twelve seconds long.

After viewing the three videos, the participant was asked to be video-taped as well and was told that it would be shown to other participants. While video-taped, the participant was shown the same six suspects that were shown to the three confederates in the three videos and they were asked to state which suspect committed the crime. The participant’s answer was recorded. After the video camera was turned off, the participant was given a confidence rating scale to complete. The confidence rating scale was a seven-point scale, with one being extremely unconfident with their answer and seven being extremely confident with their answer. Once the participant gave their answer and their confidence rating, he/she was asked to assess the body language of ‘participant’ one, two, and three. This assessment was used to make the cover story more believable and to extend the time between the first rating of confidence and the second rating of confidence. Therefore, the assessment of the body language of each ‘participant’ in the videos could be thought of as another filler task. This assessment is attached as Appendix A and is designed as a checklist which took approximately five minutes.

In order to assess if confidence ratings increase or decrease with time, each participant was asked to complete another filler task which took approximately another five minutes before

rating their confidence for a second time. The filler task was the two-back task (Jonides et al., 1997) which required participants to respond to a series of letters presented one by one which was presented on a laptop screen. There were 45 trials and for each trial each participant indicated whether the letter on the screen resembled the letter presented two trials back, by saying “yes” when it repeated and nothing when it did not repeat. Each letter was presented for one second each. The number of times that the participant said “yes” was recorded. After this filler task, the participant was asked to fill out the same seven-point confidence rating scale and was then asked to fill out a brief questionnaire about the experiment. The questionnaire is attached as Appendix B. The participant was then debriefed and told about the true purpose of the experiment. This experiment did not take longer than 40 minutes.

## **Results**

An equal number of participants completed the two conditions (8 in each of the two conditions). A chi-square test of independence was conducted to determine the relationship between believability and the suspect chosen. Results showed that there was not a significant relationship between believability and suspect chosen,  $\chi^2(1, N = 16) = 0.00, p = 1.00$ , Cramer's  $V = .00$ . Participants who watched the videos of the confederates choosing an unbelievable suspect always chose the correct suspect (100%) and those who watched videos of the confederates choosing a suspect who was believable always chose the correct suspect (100%).

A 2 X 2 one-between-one-within analysis of variance (ANOVA) on confidence was conducted with believability (believable, unbelievable) as the between subjects factor and time (time one, time two) as the within subjects factor. The results showed a significant main effect for believability,  $F(1, 14) = 6.89, p = .020$ , partial  $\eta^2 = .33$ . Participants who watched confederates pick a believable suspect had significantly higher confidence ( $M = 6.00, SD = 1.13$ )

than those who watched confederates pick an unbelievable suspect ( $M = 4.81$ ,  $SD = 0.99$ ). There was not a significant main effect for time, Greenhouse-Geisser adjusted  $F(1.00, 14.00) = .55$ ,  $p = .471$ , partial  $\eta^2 = .04$ . There was not a significant difference between confidence ratings at time one ( $M = 5.31$ ,  $SD = 1.21$ ) and at time two ( $M = 5.50$ ,  $SD = 1.14$ ). There was also not a significant believability X time interaction, Greenhouse-Geisser adjusted  $F(1.00, 14.00) = .06$ ,  $p = .809$ , partial  $\eta^2 = .004$ .

After conducting a correlation, the results showed that there was not a significant relationship between confidence and nervousness from being videotaped,  $r(14) = -.04$ ,  $p = .899$ . A multiple linear regression was then conducted predicting confidence from the variables belief that they chose the correct suspect, feelings of pressure, feelings of nervousness, and how often they give in to peer pressure (all self-reported on questionnaire). Overall, the regression was significant,  $F(4, 11) = 7.17$ ,  $p = .004$ ,  $R^2 = .72$ . Of the predictors investigated, the degree of belief that they chose the correct suspect ( $\beta = .90$ ,  $t(11) = 5.33$ ,  $p = .000$ ) was significant. Feelings of pressure ( $\beta = .10$ ,  $t(11) = .53$ ,  $p = .608$ ), feelings of nervousness ( $\beta = .09$ ,  $t(11) = .50$ ,  $p = .628$ ), and how often they give in to peer pressure ( $\beta = .27$ ,  $t(11) = 1.61$ ,  $p = .135$ ) were not significant predictors of confidence.

## Discussion

Overall, only part of the hypotheses was supported. The results did not support the notion that participants who watched the confederates choose an unbelievable suspect would pick the wrong suspect. However, they did have a lower initial confidence rating score than participants who watched videos of the confederates choosing a believable suspect. This finding is important because it shows that conformity was demonstrated in the confidence ratings, even if the participants did not conform by choosing the same suspect. These participants who were

in the ‘unbelievable’ condition did not show an increase in confidence later in time. Those who were in the ‘believable’ condition did choose the correct suspect and they did not show a significant change in confidence with time, as hypothesized. The results also showed that there was not a relationship between confidence and nervousness, but belief that they chose the correct suspect was a significant predictor of confidence. This finding provides evidence that if the participant believed that he/she chose the correct suspect, then his/her confidence was higher, which demonstrates a potential link between belief and confidence. Krishnamurti researched the relationship between belief and confidence and stated, “When there is awareness, when the mind is aware of what it is thinking, feeling, doing, not only in the superficial layer of consciousness but in the deeper hidden layers, when we are fully aware of all the implications, then there comes a sense of freedom, a sense of assurance, because you know” (Krishnamurti, 1947). In other words, these findings show that when participants believed that he/she picked the correct suspect, they experienced a sense of knowing which could have then increased their confidence.

The inability to get them to choose the wrong suspect could be due to several limitations. One main limitation could be that the confederates were not in the room with the actual participants. Southerly (2017) stated that the physical presence of the figure influences the degree of obedience. In other words, the person who is pressuring a participant to conform will increase the level of obedience if he/she is physically present. In Asch’s (1951) experiment, the confederates were physically present, which could affect the results by adding more pressure to conform. Future experiments could conduct a similar experiment as the present one but, instead of videotaping the confederates, the confederates could be in the same room as each participant. It could have also been a limitation that the confederates were fellow classmates, instead of authority figures such as professors. Southerly (2017) stated that the prestige of the authority

figure also influences the degree of obedience; the higher the perceived the prestige, the more the conformity. Thus, if authority figures were the confederates, and if they were physically present, then the participants might be more pressured to conform.

Another limitation was that the videos of the actual confederates were very brief. Although, the confederates were actually fellow students and therefore could be recognizable, they were not videotaped for long (approximately nine to twelve seconds long). By making the videos longer, the participants could feel more pressure to conform by possibly believing that the confederates were actual participants. Based on the questionnaires, 10 out of the 16 participants believed that the confederates were trying to pressure them to conform and state the same answer. This shows that the majority of the participants were not convinced that the confederates were actual participants, which could have affected the results. Also, many participants stated that they were nervous being videotaped. This could greatly affect the results by adding more pressure to conform. For instance, Bray (1950) found that conformity was related to nervousness. Although the results showed that there was not a relationship between confidence and nervousness, it could still be interesting to determine if there are different results when the video camera is taken away. Finally, participants selected a suspect right after they watched the crime video and the two confidence ratings were only separated by ten minutes. In a real-world situation, an individual would probably not select who he/she believes committed the crime directly after watching the crime occur, which could negatively affect the results. Also, Penrod and Cutler (1995) stated that “confidence appears to be influenced by post-identification factors such as repeat questioning”. Post-identification factors were not a focus in this study, so future studies could focus on this and the effects of time on confidence.

Future theoretical extensions of this study could involve examining participants from multiple age groups instead of just undergraduate students. Examining different age groups could help determine if older individuals are affected differently by the pressure to conform than younger age groups. Research has shown that adolescents are more pressured by their peers than when they are older (Southerly, 2017) so it would be of great importance to determine the effect of conformity among different ages. For example, it would be interesting to determine the effects of an authority figure being present on conformity among different age groups. To be more specific, this study could be relevant to real-world courtroom issues. For instance, researchers could measure an individual's confidence before conducting the experiment and then after the participant chooses a suspect. It would be interesting to examine the effects of a low-confident individual on eyewitness testimony. If these effects are determined, then it could help juries determine if a testimony is reliable from someone who generally has low confidence. In relation to the present study's findings, it was shown that belief in choosing the correct suspect was a significant predictor of confidence. This could be applied to real-world situations because if an individual is less confident in court then this could be less convincing due to the relationship between belief and confidence. Another important future extension could involve actually having the suspects in the room, instead of shown in pictures. It would be interesting to determine if confidence is affected by the suspects being in the room. If testimonies are more accurate with suspects in the room, then this could be implemented in court.

Finally, another extension that could be applied in the future could be examining the order of the lineup and how long each suspect is presented to the eyewitness. For instance, if pictures of suspects are shown, then it should be determined whether a testimony is more accurate if the pictures are shown all at once, or one at a time, and it should be determined how

long these pictures should be shown for. Research by Steblay, Dysart, Fulero, and Lindsay (2001) found results that demonstrated that a sequential lineup, where participants are shown one at a time, is superior to a simultaneous lineup, where you view all lineup members at the same time. However, research by Gronlund (2005) showed that the sequential lineup is only an advantage if “distinctive information is encoded and recollection is used to access that information”. Based on this research, there seems to be certain conditions that need to be applied or followed in order to make sequential lineups show accurate results. Thus, more research completed on this topic could result in court cases and eyewitness testimonies being more accurate, and this would then result in less individuals being falsely accused.

In conclusion, the majority of the hypotheses were not supported. Results overall showed that participants who watched confederates choose an unbelievable suspect did not pick the wrong suspect, which was the main hypothesis. However, this study is still of great importance because these participants did show a lower initial confidence rating score than participants who watched confederates pick a believable suspect (but the score did not change with time). This effect of this study should not be ignored because it demonstrates that although participants did not change their answers and did not visibly conform, the confederates still affected their confidence. Thus, even if people are not present, they can still affect how one feels. Results also showed that those who were in the ‘believable’ condition did choose the correct suspect and they did not show a significant change in confidence with time, as hypothesized. Finally, participants’ belief that they chose the correct suspect predicted their confidence. These mixed results show that the future directions previously explained are required in order to reach clear results.

## References

- Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgment. *Groups, leadership and men*. Pittsburgh, PA: Carnegie Press.
- Bray, D. W. (1950). The prediction of behavior from two attitude scales. *The Journal of Abnormal and Social Psychology*, 45(1), 64-84. doi:<http://dx.doi.org/10.1037/h0059529>
- Causes of wrongful convictions (n.d.). *New England Innocence Project*. Retrieved from <http://www.newenglandinnocence.org/causes-of-wrongful-convictions/>
- Festinger, L. (1957). *A Theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Gabbert, F., Memon, A., & Allan, K. (2003). Memory conformity: Can eyewitnesses influence each other's memories for an event? *Applied Cognitive Psychology*, 17(5), 533-543. doi:<http://dx.doi.org/10.1002/acp.885>
- Gronlund, S. D. (2005). Sequential lineup advantage: Contributions of distinctiveness and recollection. *Applied Cognitive Psychology*, 19, 23-37. doi:<http://dx.doi.org/10.1002/acp.1047>
- Jonides, J., Schumacher, E. H., Smith, E. E., Lauber, E. J., Awh, E., Minoshima, S., & Koeppe, R. A. (1997). Verbal working memory load affects regional brain activation as measured by PET. *Journal of Cognitive Neuroscience*, 9, 462-475. Retrieved from <https://www.lib.uwo.ca/cgi-bin/ezpauthn.cgi?url=http://search.proquest.com/docview/619119454?accountid=1511>



Kouhara, S. (1993). Changes following conformity, deviation and concession. *Japanese Journal of Experimental Social Psychology*, 32, 205-213.

doi:<http://dx.doi.org/10.2130/jjesp.32.205>

Krishnamurti (1947). Krishnamurti Quote of the Day. *Kinfo.net*. Retrieved from

<http://www.kinfo.net/krishnamurti/quotes/question-what-is-the-difference-between-belief-and>

McLeod, S. A. (2008). Asch Experiment. *Simply Psychology*. Retrieved from

[www.simplypsychology.org/asch-conformity.html](http://www.simplypsychology.org/asch-conformity.html)

McLeod, S. A. (2007). What is Conformity? *Simply Psychology*. Retrieved from

<https://www.simplypsychology.org/conformity.html>

Meunier, C., & Rule, B. G. (1967). Anxiety, confidence, and conformity. *Journal of*

*Personality*, 35, 498-504. Retrieved from [https://www.lib.uwo.ca/cgi-](https://www.lib.uwo.ca/cgi-bin/ezpauthn.cgi?url=http://search.proquest.com/docview/615519559?accountid=15115)

[bin/ezpauthn.cgi?url=http://search.proquest.com/docview/615519559?accountid=15115](http://search.proquest.com/docview/615519559?accountid=15115)

Pendergrass, K. (2013). 10 positive body language techniques to help you succeed. *Udemyblog*.

Retrieved from <https://blog.udemy.com/positive-body-language/>

Penrod, S., & Cutler, B. (1995). Witness confidence and witness accuracy: Assessing their

forensic relation. *Psychology, Public Policy, and Law*, 1, 817-845.

doi:<http://dx.doi.org/10.1037/1076-8971.1.4.817>

Rosen, P. (1992). Wrongful convictions in the criminal justice system. *Library of Parliament*.

Retrieved from <http://www.lop.parl.gc.ca/content/lop/researchpublications/bp285-e.htm>

Sanders, G. S., & Chiu, W. (1988). Eyewitness errors in the free recall of actions. *Journal of Applied Social Psychology*, 18(14), 1241-1259. doi:<http://dx.doi.org/10.1111/j.1559-1816.1988.tb01204.x>

Southerly, B. (2017). Conformity and Obedience. *Conformity and Obedience*. Retrieved from <http://faculty.frostburg.edu/psyc/southerly/prism/bill.htm>

Stebly, N., Dysart, J., Fulero, S., & Lindsay, R. C. L. (2001). Eyewitness accuracy rates in sequential and simultaneous lineup presentations: a meta-analytic comparison. *Law & Human Behavior*, 25, 459–473.

Valentine, T., & Maras, K. (2011). The effect of cross- examination on the accuracy of adult eyewitness testimony. *Applied Cognitive Psychology*, 25(4), 554-561. doi:<http://dx.doi.org/10.1002/acp.1768>

## Appendix A

### Body Language Assessment

Please circle “yes” or “no” if the participant displayed the following body language:

#### **Participant One (First Video of the Three Videos):**

Uncrossed arms:	Yes	or	No
Yawns:	Yes	or	No
Attentive:	Yes	or	No
Body leans back in chair:	Yes	or	No
Sits up straight:	Yes	or	No
Hang arms comfortably by their side or in lap	Yes	or	No

#### **Participant Two (Second Video):**

Uncrossed arms:	Yes	or	No
Yawns:	Yes	or	No
Attentive:	Yes	or	No
Body leans back in chair:	Yes	or	No
Sits up straight:	Yes	or	No
Hang arms comfortably by their side or in lap	Yes	or	No

#### **Participant Three (Third Video):**

Uncrossed arms:	Yes	or	No
Yawns:	Yes	or	No
Attentive:	Yes	or	No
Body leans back in chair:	Yes	or	No
Sits up straight:	Yes	or	No
Hang arms comfortably by their side or in lap	Yes	or	No

## Appendix B

### Questionnaire

- 1) In your opinion, what was the purpose of watching the three videos of the three participants?

---



---



---



---

For statements 2-5, circle one of the numbers indicating how much you agree or disagree, according to the following scale. Remember, you are able to leave anything blank if you are not comfortable providing the information for a statement.

[1] = strongly disagree    [2] = moderately disagree    [3] = slightly disagree  
 [4] = slightly agree    [5] = moderately agree    [6] = strongly agree

- 2) I believe I chose the correct suspect.

1                      2                      3                      4                      5                      6

- 3) I felt pressured to say the same answer as the three previous participants.

1                      2                      3                      4                      5                      6

- 4) I felt nervous being videotaped.

1                      2                      3                      4                      5                      6

- 5) I often give in to peer pressure.

1                      2                      3                      4                      5                      6

## Curriculum Vitae

Name:	Kaitlyn Sluys
Place and Year of Birth:	London, Ontario, Canada, 1995
Secondary School Diploma:	Senior Matriculation, Laurier Secondary School, London, Ontario, Canada